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10/676,072	10/02/2003	Yojiro Matsueda	117391	7778

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OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

BUDD, PAUL A

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2815

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/676,072	Applicant(s) MATSUEDA ET AL.	
	Examiner Paul A. Budd	Art Unit 2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 9-11, 16 and 17 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 and 20 is/are allowed.
- 6) ☒ Claim(s) 1-2, 4, 7, 8, 14, 15, 18, 19, 21, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 12, 13 and 22-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claims **1-8** and **12-26** are pending in this application. Claims **1-6** and **12** are amended, claims **18-26** are added and claims **9-11** are canceled and no new matter is entered. All objections to the claims defined in the Office Action dated 28 February 2007 are withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim **1** recites the limitation "analog terminals" in line 5 and recites the limitation "the analog terminal" on lines 8-9. There is insufficient antecedent basis for this limitation in the claim.

Claim **2** recites the limitation "first terminals" in line 5 and recites the limitation "the first terminal" on lines 8-9. There is insufficient antecedent basis for this limitation in the claim.

Claim **6** recites the limitation "analog terminals" in line 2 and recites the limitation "the analog terminal" on line 6. There is insufficient antecedent basis for this limitation in the claim. Claim **6** also, recites the limitation "digital terminals" in line 7 and recites the limitation "the digital terminal" on line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim 19 recites the limitation "first terminal" in line 5 and recites the limitation "the first terminals" on lines 8-9. There is insufficient antecedent basis for this limitation in the claim.

Claim Objections

4. Claim 6 is objected to because of the following informalities: Please replace "first resistance" with 'first resistor'. Please replace "second resistance" with 'second resistor'.

Claim 12 is objected to because of the following informalities: Please replace "first resistor" with 'first resistance'. Please replace "second resistor" with 'second resistance'.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 4 is rejected under 35 U.S.C. 102 (e) as being anticipated by Yamazaki et al. (US Pat. Pub. 2007/0034875).

Regarding claim 4 Yamazaki teaches a circuit substrate, comprising:

a substrate [FIG. 1-2, 101];

a plurality of emitting elements [FIG. 1-4, 309] formed in a display area, each of the plurality of emitting elements [FIG. 1, 309] having a first electrode [FIG. 1-2, 131 cathode; page 4 section 0060], a second electrode [FIG. 1-2, 128, anode; page 4 section 0060], and an emitting layer [FIG. 1-2, 130; page 4 section 0060] between the first electrode [131] and the second electrode [128], and the first electrode [131] being a common electrode [page 4 section 0061, "The cathode layer 131 is formed as a common electrode across a plurality of pixels and is connected with the wiring 120 outside of the pixel part 302 or between the pixel part 302 and the driving circuit part 301, thus being led to an external terminal"] of the plurality of emitting elements [FIG. 1, 309];

a common electrode line [FIG. 4, 301; page 4 section 0061, "The cathode layer 131 is formed as a common electrode across a plurality of pixels and is connected with the wiring 120 outside of the pixel part 302 or between the pixel part 302 and the driving circuit part 301, thus being led to an external terminal"] formed on the perimeter [see FIG. 4 and above page 4 section 0060] of the display area, the common electrode line

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[301] connected to the common electrode [131];

a plurality of terminals [See FIG. 1-17b, 109] formed on the substrate [101], the plurality of terminals including a first terminal [see FIG. 4] and a second terminal [See FIG. 4];

a first resistor [the resistance between the two terminals] connected between the first terminal [as above] and the second terminal [as above]; and

a second resistor [the resistance between the terminal and line 301] connected between the common electrode line [301] and the first terminal [as above].

The first and second resistors are comprised of the materials between the two terminals and the one terminal and the common electrode line 301 respectively. All materials inherently have some resistance and thus "resistors" inherently exist between the terminals and/or electrodes as claimed by the applicant. The applicant has not claimed any resistance values or any range of resistance values nor has the applicant claimed a specific resistor structure that structurally distinguishes over the teachings of Yamazaki. The rejection is based on a broad and reasonable interpretation of the claim language.

6. **Claims 1-2, 7-8, 14-15, 18-19, 21, and 25-26** are rejected under 35

U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Marchio et al. (US Patent 5,635,822).

Regarding claim 1 Marchio teaches a circuit substrate, comprising:

a substrate [FIG. 5];

a plurality of terminals [FIG. 5, PAD1, PAD2, PAD3] formed on the substrate; and

at least one resistance [Ra] formed between the terminals adjacent one another;

the plurality of terminals [FIG. 5, PAD1, PAD2, PAD3] including analog terminals connected to analog signal lines [FIG. 5, any wire connected to any PAD] to supply analog signals, and digital terminals connected to digital signal lines [FIG. 5, any wire connected to any PAD] to supply digital signals; and

the one resistance [Ra] having at least one end connected to the analog terminal [PAD1], and having a resistance value greater than another resistance [Rb] connected between the digital terminals [PAD2, PAD3].

The labels “analog terminals” and “digital terminals” are only labels and do not distinguish over the structure taught by Marchio. The labels in and of themselves do not distinguish over the structure taught by Marchio. It is only when structural features are additionally connected with these labels (as in other claims) that a claimed structure can distinguish over Marchio’s structure. In claim 1 since there are NO structural differences between the first terminals (analog) and second terminals (digital) thus it is appropriate to select any terminals as “analog” and any other terminals as “digital”. The limitations “analog signal lines” and “digital signal lines” are also subject to the above lack of

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distinction. They will be treated as first and second lines that have no structural differences within claim 1's language.

The limitations "to supply digital signals" and "to supply analog signals" are intended use and *do not* add any further limitations to the claim. Intended use of a structure does not distinguish over the structure taught by Whitney. Thus, these intended use limitations are subject to *In re Pearson*, 494 F.2d 1399, 181 USPQ 641 (CCPA 1974) where intended use does not avoid prior use.

Marchio on column 3 lines 35-59 teaches values for R_a and R_b in the range of 10 Ohms to 500 Ohms. The Office considers Marchio's teaching regarding R_a and R_b that it would be obvious to either make them the same value or different values.

Regarding claim 2 Marchio teaches a circuit substrate, comprising:

a substrate [FIG. 5];

a plurality of terminals [FIG. 5, PAD1, PAD2, PAD3] formed on the substrate; and

at least one resistance [R_a] formed between the terminals [PAD1, PAD2] adjacent one another;

the plurality of terminals including first terminals [PAD1-PAD3] connected to data lines to supply data signals, and second terminals [PAD1-PAD3] connected to control lines to supply control signals; and

the one resistance [R_a] having at least one end connected to the first terminal [PAD1],

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and having a resistance value greater than another resistance [Rb] connected between the second terminals [PAD2, PAD3] adjacent one another.

Regarding claim **7** Marchio teaches the circuit substrate according to Claim **1**, further comprising electric power terminals connected to a power source; and resistances formed between the electric power terminals and adjacent non-electric power terminals formed for purposes other than supplying power. The label "electric power terminals" and "adjacent non-electric power terminals" do not distinguish over Marchio's PAD1, PAD2, PAD3 terminals. The limitation "formed for purposes other than supplying power" and "terminals connected to a power source" are intended use and do not distinguish over the structure taught by Marchio.

Regarding claim **8** Marchio teaches the circuit substrate according to Claim **7**, the resistance having a resistance value equal to or less than the resistance connected to other non-electric power terminals. Marchio's teaching at least teach that the resistances may be equal or less than other resistances.

Regarding claims **14,25** Marchio teaches an electro-optical device, comprising: the circuit substrate according to Claim **1** (or claim **18**). The label "an electro-optical device" does not add any structural limitations to the device claimed in claim **1** and does not structurally distinguish over the structure taught by Marchio.

Regarding claim **15,26** Marchio teaches an electronic apparatus, comprising: the electro-optical device according to Claim **14** (or claim **25**). The labels “an electronic apparatus” and “an electro-optical device” do not add any structural limitations to the device claimed in claim **1** and does not structurally distinguish over the structure taught by Marchio.

Regarding claim **18** Marchio teaches a circuit substrate, comprising:

- a substrate;
- analog signal lines [FIG. 5, wire connected to PAD1] to supply analog signals;
- digital signal lines [FIG. 5, wire connected to PAD2] to supply digital signals;
- an analog terminal [FIG. 5, PAD1] formed on the substrate, the analog terminal being connected to one of the analog signal lines;
- digital terminals [FIG. 5, PAD2, PAD 3] formed on the substrate, each of the digital terminals being connected to one of the digital signal lines respectively;
- a first resistor [Ra] having at least one end connected to the analog terminal [PAD1];
- and
- a second resistor [Rb] connected between the digital terminals [PAD2, PAD3],

the first resistor [Ra] having a resistance value greater than the second resistor [Rb].

The labels “analog terminals” and “digital terminals” are only labels and do not distinguish over the structure taught by Marchio. The labels in and of themselves do not

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distinguish over the structure taught by Marchio. It is only when structural features are additionally connected with these labels (as in other claims) that a claimed structure can distinguish over Marchio's structure. In claim **18** since there are NO structural differences between the analog terminals and second digital terminals thus it is appropriate to select any terminals as "analog" and any other terminals as "digital". The limitations "analog signal lines" and "digital signal lines" are also subject to the above lack of distinction. They will be treated as first and second lines that have no structural differences within claim **18**'s language.

The limitations "to supply digital signals" and "to supply analog signals" are intended use and *do not* add any further limitations to the claim. Intended use of a structure does not distinguish over the structure taught by Whitney. Thus, these intended use limitations are subject to *In re Pearson*, 494 F.2d 1399, 181 USPQ 641 (CCPA 1974) where intended use does not avoid prior use.

Marchio on column 3 lines 35-59 teaches values for R_a and R_b in the range of 10 Ohms to 500 Ohms. The Office considers Marchio's teaching regarding R_a and R_b that it would be obvious to either make them the same value or different values.

Regarding claim **19** Marchio teaches a circuit substrate, comprising:

a substrate;

data lines [FIG. 5, wire connected to PAD1] to supply data signal;

control lines [FIG. 5, wire connected to PAD2] to supply control signals;

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a first terminal [PAD1] formed on the substrate, the first terminal being connected to one of the data lines FIG. 5, wire connected to PAD1];
second terminals [FIG. 5, PAD2, PAD3] formed on the substrate, each of the second terminals being connected [See FIG. 5] to one of the control lines respectively;
a first resistor [Ra] having at least one end connected to the first terminals [PAD1]; and
a second resistor [Ra] connected between the second terminals [PAD2, PAD3],
the first resistor [Ra] having a resistance value greater than the second resistor [Rb].

Regarding claim **21** Marchio teaches the circuit substrate according to Claim **19**, further comprising: an electric power terminal connected to a power source; and a third resistor formed between the electric power terminal and one of the control lines.

The label "electric power terminal" does not distinguish over Marchio's PAD1, PAD2, PAD3 terminals. The limitation "terminal connected to a power source" is intended use and does not distinguish over the structure taught by Marchio. Marchio's structure inherently shows resistors [Ra, Rb] formed between the terminals regardless of the labels attached to the terminals.

Allowable Subject Matter

7. Claims **3**, and **20** are allowed. Claims are **5-6, 12-13, 22-24** objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and resolving all 112(2nd) issues as well.

Remarks

8. Because of the 112(2ND) rejections for previously presented claims and new art rejections of previously presented claims this action is non-final.

Response to Arguments

9. The applicant has requested a rejoinder of claims **16** and **17** drawn to a non-elected invention. As stated in MPEP 821.04, "In order to be eligible for rejoinder, a claim to a nonelected invention must depend from or otherwise require all the limitations of an allowable claim. *A withdrawn claim that does not require all the limitations of an allowable claim will not be rejoined.* Furthermore, where restriction was required between a product and a process of making and/or using the product, and the product invention was elected and subsequently found allowable, all claims to a nonelected process invention must depend from or otherwise require all the limitations of an allowable claim for the claims directed to that process invention to be eligible for rejoinder." Claims **16** and **17** *do not require all the limitations of an allowable claim and will not be rejoined.* The restriction was proper and the requested rejoinder of claims **16** and **17** drawn to a non-elected invention is denied.

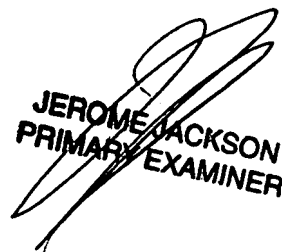
In the Office Action dated 28 February 2007, original claim **12** was not rejected with prior art, nor with 112(2nd) rejection specific to claim **12**. However it was rejected based on its dependency on claim **9**. This should make the record clear on claim **12**'s

status. The Office regrets any confusion based on its previous silence regarding claim 12.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Budd whose telephone number 571-272-8796. The examiner can normally be reached on Monday to Friday 8:30 to 5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker can be reached on 571-272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PAB


JEROME JACKSON
PRIMARY EXAMINER